

Release notes for ENDF/B Development n-088_Ra_226
evaluation

ENDF
B-VII.dev

April 26, 2017

- checkr Warnings:

1. A previous error halted parsing of the current section
MAT=8834, MF= 1, MT=451 (1): Parsing stopped

```
ERROR(S) FOUND IN MAT=8834, MF= 1, MT=451
SECTION CANNOT BE CHECKED FROM SEQUENCE NUMBER      136 TO      191
```

- checkr Errors:

1. A variable is outside the allowed ENDF range
MAT=8834, MF= 1, MT=451 (0): Variable range

```
ERROR(S) FOUND IN MAT=8834, MF= 1, MT=451
MOD =      1 OUT OF RANGE      0 -      0      RECORD NUMBER      136
```

2. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=8834, MF= 1, MT=452 (0): Directory (b)

```
ERROR(S) FOUND IN MAT=8834, MF= 1, MT=452
SECTION 1/452 NOT IN DIRECTORY      RECORD NUMBER      192
```

3. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=8834, MF= 2, MT=151 (0): Directory (b)

```
ERROR(S) FOUND IN MAT=8834, MF= 2, MT=151
SECTION 2/151 NOT IN DIRECTORY      RECORD NUMBER      197
```

4. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=8834, MF= 3, MT= 1 (0): Directory (b)

```
ERROR(S) FOUND IN MAT=8834, MF= 3, MT= 1
SECTION 3/ 1 NOT IN DIRECTORY      RECORD NUMBER      237
```

5. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=8834, MF= 3, MT= 2 (0): Directory (b)

```
ERROR(S) FOUND IN MAT=8834, MF= 3, MT= 2
SECTION 3/ 2 NOT IN DIRECTORY      RECORD NUMBER      260
```

6. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=8834, MF= 3, MT= 4 (0): Directory (b)

```
ERROR(S) FOUND IN MAT=8834, MF= 3, MT= 4
SECTION 3/ 4 NOT IN DIRECTORY      RECORD NUMBER      281
```

7. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=8834, MF= 3, MT= 16 (0): Directory (b)

ERROR(S) FOUND IN MAT=8834, MF= 3, MT= 16
SECTION 3/ 16 NOT IN DIRECTORY RECORD NUMBER 299

8. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=8834, MF= 3, MT= 17 (0): Directory (b)

ERROR(S) FOUND IN MAT=8834, MF= 3, MT= 17
SECTION 3/ 17 NOT IN DIRECTORY RECORD NUMBER 308

9. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=8834, MF= 3, MT= 18 (0): Directory (b)

ERROR(S) FOUND IN MAT=8834, MF= 3, MT= 18
SECTION 3/ 18 NOT IN DIRECTORY RECORD NUMBER 315

10. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=8834, MF= 3, MT= 37 (0): Directory (b)

ERROR(S) FOUND IN MAT=8834, MF= 3, MT= 37
SECTION 3/ 37 NOT IN DIRECTORY RECORD NUMBER 327

11. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=8834, MF= 3, MT= 51 (0): Directory (b)

ERROR(S) FOUND IN MAT=8834, MF= 3, MT= 51
SECTION 3/ 51 NOT IN DIRECTORY RECORD NUMBER 332

12. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=8834, MF= 3, MT= 52 (0): Directory (b)

ERROR(S) FOUND IN MAT=8834, MF= 3, MT= 52
SECTION 3/ 52 NOT IN DIRECTORY RECORD NUMBER 350

13. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=8834, MF= 3, MT= 53 (0): Directory (b)

ERROR(S) FOUND IN MAT=8834, MF= 3, MT= 53
SECTION 3/ 53 NOT IN DIRECTORY RECORD NUMBER 367

14. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=8834, MF= 3, MT= 54 (0): Directory (b)

ERROR(S) FOUND IN MAT=8834, MF= 3, MT= 54
SECTION 3/ 54 NOT IN DIRECTORY RECORD NUMBER 384

15. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=8834, MF= 3, MT= 55 (0): Directory (b)

- | | | |
|---|---------------|-----|
| ERROR(S) FOUND IN MAT=8834, MF= 3, MT= 55 | RECORD NUMBER | 400 |
| SECTION 3/ 55 NOT IN DIRECTORY | | |
16. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=8834, MF= 3, MT= 56 (0): Directory (b)
- | | | |
|---|---------------|-----|
| ERROR(S) FOUND IN MAT=8834, MF= 3, MT= 56 | RECORD NUMBER | 416 |
| SECTION 3/ 56 NOT IN DIRECTORY | | |
17. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=8834, MF= 3, MT= 57 (0): Directory (b)
- | | | |
|---|---------------|-----|
| ERROR(S) FOUND IN MAT=8834, MF= 3, MT= 57 | RECORD NUMBER | 431 |
| SECTION 3/ 57 NOT IN DIRECTORY | | |
18. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=8834, MF= 3, MT= 58 (0): Directory (b)
- | | | |
|---|---------------|-----|
| ERROR(S) FOUND IN MAT=8834, MF= 3, MT= 58 | RECORD NUMBER | 446 |
| SECTION 3/ 58 NOT IN DIRECTORY | | |
19. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=8834, MF= 3, MT= 59 (0): Directory (b)
- | | | |
|---|---------------|-----|
| ERROR(S) FOUND IN MAT=8834, MF= 3, MT= 59 | RECORD NUMBER | 461 |
| SECTION 3/ 59 NOT IN DIRECTORY | | |
20. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=8834, MF= 3, MT= 60 (0): Directory (b)
- | | | |
|---|---------------|-----|
| ERROR(S) FOUND IN MAT=8834, MF= 3, MT= 60 | RECORD NUMBER | 475 |
| SECTION 3/ 60 NOT IN DIRECTORY | | |
21. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=8834, MF= 3, MT= 61 (0): Directory (b)
- | | | |
|---|---------------|-----|
| ERROR(S) FOUND IN MAT=8834, MF= 3, MT= 61 | RECORD NUMBER | 489 |
| SECTION 3/ 61 NOT IN DIRECTORY | | |
22. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=8834, MF= 3, MT= 62 (0): Directory (b)
- | | | |
|---|---------------|-----|
| ERROR(S) FOUND IN MAT=8834, MF= 3, MT= 62 | RECORD NUMBER | 500 |
| SECTION 3/ 62 NOT IN DIRECTORY | | |
23. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=8834, MF= 3, MT= 63 (0): Directory (b)

- | | | | |
|--|---|---------------|-----|
| | ERROR(S) FOUND IN MAT=8834, MF= 3, MT= 63 | | |
| | SECTION 3/ 63 NOT IN DIRECTORY | RECORD NUMBER | 513 |
24. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=8834, MF= 3, MT= 64 (0): Directory (b)
- | | | | |
|--|---|---------------|-----|
| | ERROR(S) FOUND IN MAT=8834, MF= 3, MT= 64 | | |
| | SECTION 3/ 64 NOT IN DIRECTORY | RECORD NUMBER | 524 |
25. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=8834, MF= 3, MT= 65 (0): Directory (b)
- | | | | |
|--|---|---------------|-----|
| | ERROR(S) FOUND IN MAT=8834, MF= 3, MT= 65 | | |
| | SECTION 3/ 65 NOT IN DIRECTORY | RECORD NUMBER | 536 |
26. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=8834, MF= 3, MT= 66 (0): Directory (b)
- | | | | |
|--|---|---------------|-----|
| | ERROR(S) FOUND IN MAT=8834, MF= 3, MT= 66 | | |
| | SECTION 3/ 66 NOT IN DIRECTORY | RECORD NUMBER | 548 |
27. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=8834, MF= 3, MT= 91 (0): Directory (b)
- | | | | |
|--|---|---------------|-----|
| | ERROR(S) FOUND IN MAT=8834, MF= 3, MT= 91 | | |
| | SECTION 3/ 91 NOT IN DIRECTORY | RECORD NUMBER | 559 |
28. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=8834, MF= 3, MT=102 (0): Directory (b)
- | | | | |
|--|---|---------------|-----|
| | ERROR(S) FOUND IN MAT=8834, MF= 3, MT=102 | | |
| | SECTION 3/102 NOT IN DIRECTORY | RECORD NUMBER | 570 |
29. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=8834, MF= 4, MT= 2 (0): Directory (b)
- | | | | |
|--|--|---------------|-----|
| | ERROR(S) FOUND IN MAT=8834, MF= 4, MT= 2 | | |
| | SECTION 4/ 2 NOT IN DIRECTORY | RECORD NUMBER | 592 |
30. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=8834, MF= 4, MT= 16 (0): Directory (b)
- | | | | |
|--|---|---------------|-----|
| | ERROR(S) FOUND IN MAT=8834, MF= 4, MT= 16 | | |
| | SECTION 4/ 16 NOT IN DIRECTORY | RECORD NUMBER | 765 |
31. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=8834, MF= 4, MT= 17 (0): Directory (b)

- | | | |
|--|---|-------------------|
| | ERROR(S) FOUND IN MAT=8834, MF= 4, MT= 17 | |
| | SECTION 4/ 17 NOT IN DIRECTORY | RECORD NUMBER 776 |
32. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=8834, MF= 4, MT= 18 (0): Directory (b)
- | | | |
|--|---|-------------------|
| | ERROR(S) FOUND IN MAT=8834, MF= 4, MT= 18 | |
| | SECTION 4/ 18 NOT IN DIRECTORY | RECORD NUMBER 787 |
33. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=8834, MF= 4, MT= 37 (0): Directory (b)
- | | | |
|--|---|-------------------|
| | ERROR(S) FOUND IN MAT=8834, MF= 4, MT= 37 | |
| | SECTION 4/ 37 NOT IN DIRECTORY | RECORD NUMBER 798 |
34. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=8834, MF= 4, MT= 51 (0): Directory (b)
- | | | |
|--|---|-------------------|
| | ERROR(S) FOUND IN MAT=8834, MF= 4, MT= 51 | |
| | SECTION 4/ 51 NOT IN DIRECTORY | RECORD NUMBER 809 |
35. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=8834, MF= 4, MT= 52 (0): Directory (b)
- | | | |
|--|---|-------------------|
| | ERROR(S) FOUND IN MAT=8834, MF= 4, MT= 52 | |
| | SECTION 4/ 52 NOT IN DIRECTORY | RECORD NUMBER 834 |
36. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=8834, MF= 4, MT= 53 (0): Directory (b)
- | | | |
|--|---|-------------------|
| | ERROR(S) FOUND IN MAT=8834, MF= 4, MT= 53 | |
| | SECTION 4/ 53 NOT IN DIRECTORY | RECORD NUMBER 859 |
37. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=8834, MF= 4, MT= 54 (0): Directory (b)
- | | | |
|--|---|-------------------|
| | ERROR(S) FOUND IN MAT=8834, MF= 4, MT= 54 | |
| | SECTION 4/ 54 NOT IN DIRECTORY | RECORD NUMBER 884 |
38. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=8834, MF= 4, MT= 55 (0): Directory (b)
- | | | |
|--|---|-------------------|
| | ERROR(S) FOUND IN MAT=8834, MF= 4, MT= 55 | |
| | SECTION 4/ 55 NOT IN DIRECTORY | RECORD NUMBER 909 |
39. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=8834, MF= 4, MT= 56 (0): Directory (b)

- | | | |
|---|---------------|-----|
| ERROR(S) FOUND IN MAT=8834, MF= 4, MT= 56 | RECORD NUMBER | 934 |
| SECTION 4/ 56 NOT IN DIRECTORY | | |
40. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=8834, MF= 4, MT= 57 (0): Directory (b)
- | | | |
|---|---------------|-----|
| ERROR(S) FOUND IN MAT=8834, MF= 4, MT= 57 | RECORD NUMBER | 959 |
| SECTION 4/ 57 NOT IN DIRECTORY | | |
41. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=8834, MF= 4, MT= 58 (0): Directory (b)
- | | | |
|---|---------------|-----|
| ERROR(S) FOUND IN MAT=8834, MF= 4, MT= 58 | RECORD NUMBER | 983 |
| SECTION 4/ 58 NOT IN DIRECTORY | | |
42. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=8834, MF= 4, MT= 59 (0): Directory (b)
- | | | |
|---|---------------|------|
| ERROR(S) FOUND IN MAT=8834, MF= 4, MT= 59 | RECORD NUMBER | 1007 |
| SECTION 4/ 59 NOT IN DIRECTORY | | |
43. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=8834, MF= 4, MT= 60 (0): Directory (b)
- | | | |
|---|---------------|------|
| ERROR(S) FOUND IN MAT=8834, MF= 4, MT= 60 | RECORD NUMBER | 1031 |
| SECTION 4/ 60 NOT IN DIRECTORY | | |
44. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=8834, MF= 4, MT= 61 (0): Directory (b)
- | | | |
|---|---------------|------|
| ERROR(S) FOUND IN MAT=8834, MF= 4, MT= 61 | RECORD NUMBER | 1055 |
| SECTION 4/ 61 NOT IN DIRECTORY | | |
45. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=8834, MF= 4, MT= 62 (0): Directory (b)
- | | | |
|---|---------------|------|
| ERROR(S) FOUND IN MAT=8834, MF= 4, MT= 62 | RECORD NUMBER | 1080 |
| SECTION 4/ 62 NOT IN DIRECTORY | | |
46. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=8834, MF= 4, MT= 63 (0): Directory (b)
- | | | |
|---|---------------|------|
| ERROR(S) FOUND IN MAT=8834, MF= 4, MT= 63 | RECORD NUMBER | 1104 |
| SECTION 4/ 63 NOT IN DIRECTORY | | |
47. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=8834, MF= 4, MT= 64 (0): Directory (b)

- | | |
|---|--------------------|
| ERROR(S) FOUND IN MAT=8834, MF= 4, MT= 64 | |
| SECTION 4/ 64 NOT IN DIRECTORY | RECORD NUMBER 1129 |
48. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=8834, MF= 4, MT= 65 (0): Directory (b)
- | | |
|---|--------------------|
| ERROR(S) FOUND IN MAT=8834, MF= 4, MT= 65 | |
| SECTION 4/ 65 NOT IN DIRECTORY | RECORD NUMBER 1151 |
49. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=8834, MF= 4, MT= 66 (0): Directory (b)
- | | |
|---|--------------------|
| ERROR(S) FOUND IN MAT=8834, MF= 4, MT= 66 | |
| SECTION 4/ 66 NOT IN DIRECTORY | RECORD NUMBER 1173 |
50. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=8834, MF= 4, MT= 91 (0): Directory (b)
- | | |
|---|--------------------|
| ERROR(S) FOUND IN MAT=8834, MF= 4, MT= 91 | |
| SECTION 4/ 91 NOT IN DIRECTORY | RECORD NUMBER 1195 |
51. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=8834, MF= 5, MT= 16 (0): Directory (b)
- | | |
|---|--------------------|
| ERROR(S) FOUND IN MAT=8834, MF= 5, MT= 16 | |
| SECTION 5/ 16 NOT IN DIRECTORY | RECORD NUMBER 1218 |
52. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=8834, MF= 5, MT= 17 (0): Directory (b)
- | | |
|---|--------------------|
| ERROR(S) FOUND IN MAT=8834, MF= 5, MT= 17 | |
| SECTION 5/ 17 NOT IN DIRECTORY | RECORD NUMBER 1236 |
53. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=8834, MF= 5, MT= 18 (0): Directory (b)
- | | |
|---|--------------------|
| ERROR(S) FOUND IN MAT=8834, MF= 5, MT= 18 | |
| SECTION 5/ 18 NOT IN DIRECTORY | RECORD NUMBER 1259 |
54. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=8834, MF= 5, MT= 37 (0): Directory (b)
- | | |
|---|--------------------|
| ERROR(S) FOUND IN MAT=8834, MF= 5, MT= 37 | |
| SECTION 5/ 37 NOT IN DIRECTORY | RECORD NUMBER 1267 |
55. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=8834, MF= 5, MT= 91 (0): Directory (b)

- recent Warnings:

1. generic warning message
0: Warning

```
Calculate Cross Sections from Resonance Parameters (RECENT 2015-1)
=====
Retrieval Criteria-----          MAT
File 2 Minimum Cross Section- 1.0000E-10 (Standard Option)
Reactions with No Background-      Output (Resonance Contribution)
... [153 more lines]
```

- groupie Errors:

1. Very small elastic cross section found
0: Small elastic

```
Multi-Group and Multi-Band Parameters from ENDF/B Data (GROUPIE 2015-2)
-----
ENDF/B Input and Output Data Filenames
ENDFB.IN
ENDFB.OUT
... [97 more lines]
```

- fudge-4.0 Warnings:

1. Missing a channel with a particular angular momenta combination
resonances / resolved / MultiLevelBreitWigner (Error # 0): missingResonanceChannel

WARNING: Missing a channel with angular momenta combination L = 0, J = 1.5 and S = 1.5 for "capture"

2. Potential scattering hasn't converted, you need more L's!
resonances / resolved (Error # 1): potentialScatteringNotConverged

WARNING: Potential scattering hasn't converged by L=0 at E=1000.0 eV, xs[0]/xs[0]=100.0% > 0.1%

3. Cross section does not match sum of linked reaction cross sections
crossSectionSum label 0: total (Error # 0): CS Sum.

WARNING: Cross section does not match sum of linked reaction cross sections! Max diff: 0.75%

4. Cross section does not match sum of linked reaction cross sections
crossSectionSum label 1: (z,n) (Error # 0): CS Sum.

WARNING: Cross section does not match sum of linked reaction cross sections! Max diff: 0.15%

- fudge-4.0 Errors:

1. Found a negative probability
*reaction label 0: n + Ra226 / Product: n / Distribution: / angularTwoBody - XYs2d:
(Error # 0): Negative prob.*

WARNING: Negative probabilities encountered. Incident energy: 2.e7 eV, worst case: -0.00581726978882

2. Calculated and tabulated Q values disagree.
reaction label 18: n[multiplicity:'2'] + Ra225 (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: -6154847.900817871 eV vs -6393290. eV!

3. Calculated and tabulated Q values disagree.
reaction label 19: n[multiplicity:'3'] + Ra224 (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: -11059324.96450806 eV vs -1.12907e7 eV!

4. Weights in a weighted sum don't sum up to one
*reaction label 19: n[multiplicity:'3'] + Ra224 / Product: n / Distribution: / uncorrelated
- energy - weightedFunctionals: (Error # 0): Bad weight sum*

WARNING: Weights don't sum to 1.0!

5. Calculated and tabulated Q values disagree.
reaction label 20: n[multiplicity:'4'] + Ra223 (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: -17538113.59655762 eV vs -1.77842e7 eV!

6. Calculated and tabulated Q values disagree.
reaction label 22: Ra227 + gamma (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: 4802832.137207031 eV vs 4564690. eV!

• njoy2012 Warnings:

1. Evaluation has no unresolved resonance parameters given
unresr...calculation of unresolved resonance cross sections (0): No URR

---message from unresr---mat 8834 has no unresolved parameters
copy as is to nout

2. In some evaluations, the partial fission reactions MT=19, 20, 21, and 38 are given in File 3, but no corresponding distributions are given. In these cases, it is assumed that MT=18 should be used for the fission neutron distributions.
heatr...prompt kerma (0): HEATR/hinit (3)

---message from hinit---mt458 is missing for this mat

3. Evaluation has no unresolved resonance parameters given
purrr...probabalistic unresolved calculation (0): No URR

---message from purrr---mat 8834 has no unresolved parameters
copy as is to nout

4. With the advent of the ENDF-6 format, it is possible to make evaluations that fully describe all the products of a nuclear reaction. Some carry-over evaluations from earlier ENDF/B versions also have this capability, but many do not. This message is intended to goad evaluators to improve things!
groupr...compute self-shielded group-averaged cross-sections (0): GROUPR/conver (0)

```

---message from conver---cannot do complete particle production for mt= 16
                                only mf4/mf5 provided

```

5. With the advent of the ENDF-6 format, it is possible to make evaluations that fully describe all the products of a nuclear reaction. Some carry-over evaluations from earlier ENDF/B versions also have this capability, but many do not. This message is intended to goad evaluators to improve things!
grouppr...compute self-shielded group-averaged cross-sections (1): GROUPR/conver (0)

```

---message from conver---cannot do complete particle production for mt= 17
                                only mf4/mf5 provided

```

6. With the advent of the ENDF-6 format, it is possible to make evaluations that fully describe all the products of a nuclear reaction. Some carry-over evaluations from earlier ENDF/B versions also have this capability, but many do not. This message is intended to goad evaluators to improve things!
grouppr...compute self-shielded group-averaged cross-sections (2): GROUPR/conver (0)

```

---message from conver---cannot do complete particle production for mt= 37
                                only mf4/mf5 provided

```

7. With the advent of the ENDF-6 format, it is possible to make evaluations that fully describe all the products of a nuclear reaction. Some carry-over evaluations from earlier ENDF/B versions also have this capability, but many do not. This message is intended to goad evaluators to improve things!
grouppr...compute self-shielded group-averaged cross-sections (3): GROUPR/conver (0)

```

---message from conver---cannot do complete particle production for mt= 91
                                only mf4/mf5 provided

```

- njoy2012 Errors:

1. An angular distribution is negative
acer...monte carlo neutron and photon data (0): Neg. P(Ejμ) (b)

```

---message from ptleg2---negative probs found
                                17 for mt= 2 e= 2.000E+07

```

- acelst Warnings:

1. generic warning message
0: Warning

```

ACELST WARNING - More than one range for MF/MT           6           16
ACELST WARNING - More than one range for MF/MT           6           17

```

2. generic warning message
1: Warning

```

ACELST WARNING - More than one range for MF/MT           6           37
STOP ACELST Completed

```